Federal Communications Commission 45 L Street NE Washington, DC 20554

News Media Information 202 / 418-0500 Internet: https://www.fcc.gov TTY: 1-888-835-5322

111. 1-000-055-5522

DA 22-1315

Released: December 14, 2022

WIRELINE COMPETITION BUREAU SEEKS COMMENT ON REQUESTS TO ALLOW THE USE OF E-RATE FUNDS FOR ADVANCED OR NEXT-GENERATION FIREWALLS AND OTHER NETWORK SECURITY SERVICES

WC Docket No. 13-184

Comment Date: February 13, 2023 Reply Comment Date: March 30, 2023

The Federal Communications Commission (Commission) has received several petitions and requests from E-Rate stakeholders through the annual E-Rate eligible services list (ESL) proceedings, asking that the Commission permit the use of E-Rate program funds to support advanced or next-generation firewalls and services, as well as other network security services. By this Notice, the Wireline Competition Bureau (Bureau) seeks comment on these petitions as well as the related funding year 2023 ESL proceeding filings. In so doing, we highlight four filings below that together cover the requests and issues raised by the filers included in Appendix A: (1) a petition for waiver filed by Cisco Systems, Inc. (Cisco);² (2) a petition for declaratory ruling and petition for rulemaking filed by a coalition led by the Consortium for School Networking (CoSN);³ (3) a proposed three-year E-Rate cybersecurity pilot program by Funds for Learning (FFL);⁴ and (4) a letter from 20 national educational groups led by AASA, The School Superintendents Association (AASA).⁵

¹ The petitions for relief and the related funding year 2023 ESL proceeding filings on which we seek comment are identified in Appendix A. We further note that E-Rate stakeholders have submitted comments in the prior funding years 2015 through 2019 ESL proceedings, requesting that the Commission add advanced firewalls and other network protection security services, to the E-Rate program's ESL. The E-Rate program is formally known as the schools and libraries universal support mechanism.

² Petition for Waiver of Cisco Systems, Inc., WC Docket 13-184, (filed Aug. 20, 2020), https://www.fcc.gov/ecfs/document/10820400607480/1 (Cisco Petition).

³ Petition of CoSN et al. for Declaratory Relief and Petition for Rulemaking Allowing Additional Use Of E-Rate Funds for K-12 Cybersecurity, WC Docket No. 13-184, at 2 (filed Feb. 8, 2021), https://www.fcc.gov/ecfs/filing/102081871205710 (CoSN Petition).

⁴ See, e.g., Letter from John D. Harrington, Chief Executive Officer, Funds for Learning, to Jessica Rosenworcel, Chairwoman, Brendan Carr, Geoffrey Starks, Nathan Simington, Commissioners, FCC, CC Docket No. 02-6, WC Docket No. 13-184 (filed Nov. 15, 2022) (FFL Nov. 15 Ex Parte Letter); Letter from John D. Harrington, Chief Executive Officer, Funds for Learning, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 02-6, WC Docket No. 13-184 (filed Nov. 21, 2022) (FFL Nov. 21 Ex Parte Letter); Letter from John D. Harrington, Chief Executive Officer, Funds for Learning, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 02-6, WC Docket No. 13-184 (filed Nov. 23, 2022) (FFL Nov. 23 Ex Parte Letter) (collectively, FFL Ex Parte Letters).

Background. The E-Rate program was authorized by Congress as part of the Telecommunications Act of 1996 (the Telecommunications Act), and created by the Commission in 1997. Through the E-Rate program, eligible schools, libraries, and consortia (comprised of eligible schools and libraries) may request universal service discounts for eligible services and/or equipment (collectively, eligible services), including telecommunications services, Internet access, and internal connections.⁶ The Commission has also determined that it has the authority to designate services eligible for E-Rate support as part of its authority to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary classrooms and libraries.⁷

The Commission uses several criteria to determine whether to add services to the eligible services list. First, under the statute, a service must serve an educational purpose. Second, the service should be primarily or significantly used to facilitate connectivity. Third, due to the program's limited funds, the Commission must balance the benefits of particular services with the costs of adding to the list of supported services. Section 254(h)(2)(A) authorizes the Commission to designate services eligible for E-Rate support as part of its authority to enhance, to the extent technologically feasible and economically reasonable, access to advanced telecommunications and information services. Thus, the E-Rate program is not able to fund every service that potentially serves an educational purpose, and for that reason the Commission evaluates the potential impact of funding a particular service on the E-Rate program and the Universal Service Fund, when considering whether to add new services to the eligible services list.

Currently, the E-Rate program funds basic firewall service provided as part of the vendor's Internet service as a Category One service. ¹² In addition, the E-Rate program also funds separately priced basic firewalls and services as a Category Two service subject to the applicants' five-year Category Two budget. ¹³ However, the Commission has declined to extend basic firewall services to include anti-virus and anti-spam software, intrusion protection and intrusion protection devices that monitor, detect, and deter threats to a network from external and internal attacks, and other services to protect networks, and

⁽Continued from previous page)

⁵ Letter from AASA, The School Superintendents Association, et al., to Jessica Rosenworcel, Chairwoman, Brendan Carr, Geoffrey Starks, and Nathan Simington, Commissioners, FCC, CC Docket No. 02-6 (filed Sept. 23, 2022) (AASA *Ex Parte* Letter).

⁶ 47 U.S.C. § 254(c)(1), (c)(3), (h)(1)(B), (h)(2)(A). Congress charged the Commission with establishing competitively neutral rules to enhance access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms and libraries; and also provided the Commission with the authority to designate "special" or "additional" services eligible for universal service support for schools and libraries. 47 U.S.C. § 254 (c)(3), (h)(2)(A).

⁷ Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9008-15, paras. 436-49 (1997) (*Universal Service First Report and Order*); see also 47 U.S.C. § 254(h)(2)(A).

⁸ See 47 U.S.C. § 254(h)(1)(B); see also Schools and Libraries Universal Support Mechanism, A National Broadband Plan for Our Future, CC Docket No. 02-6, GN Docket No. 09-51, Sixth Report and Order, 25 FCC Rcd 18762, 18805, para. 99 (2010) (Schools and Libraries Sixth Report and Order) (describing the criteria the Commission uses to determine whether to expand or add new eligible services for the E-Rate program).

⁹ 47 U.S.C. § 254(h)(2)(A).

¹⁰ *Id.*; see also Schools and Libraries Sixth Report and Order, 25 FCC Rcd at 18805, para. 99.

¹¹ Schools and Libraries Sixth Report and Order, 25 FCC Rcd at 18805, para. 99.

¹² See, e.g., Modernizing the E-Rate Program for Schools and Libraries, WC Docket 13-184, Order, DA 21-1602, 2021 WL 6063032, at *7 and 9 (WCB Dec. 17, 2021) (FY 2022 ESL Order and ESL).

¹³ See id.

has also removed virtual private networks (VPN) and other data protection services from the E-Rate eligible services list beginning in funding year 2015.¹⁴

Although some parties previously have advocated to expand E-Rate support for anti-virus and anti-spam software, intrusion protection, and intrusion prevention devices, the Commission has declined to do so in the context of various E-Rate proceedings to ensure that limited E-Rate funds are directed to the E-Rate program's primary purpose of providing connectivity to and within schools and libraries. In doing so, the Commission has explained that it "must balance the benefits of such protections with the costs of augmenting our list of supported services ... Although we agree that protection from unauthorized access is a legitimate concern, the funds available to support the E-Rate program are constrained. Therefore we find that, on balance, the limited E-Rate funds should not be used to support these services." In 2014, the Commission again declined to designate other network security services, such as intrusion protection/intrusion detection, malware, etc. as eligible for Category Two support "to ensure internal connections support is targeted efficiently at equipment that is necessary for LANs/WANs." In 2019, the Commission again declined stakeholders' requests to make advanced firewalls and services eligible as part of the Category Two Budget proceeding for these same reasons. 18

The Petitions and ESL Filings. During the COVID-19 pandemic, several E-Rate stakeholders submitted petitions asking the Commission to reconsider the eligibility of advanced firewall and network security services given the increased use of schools' broadband networks to provide remote learning to their students. On August 20, 2020, Cisco submitted a Petition for Waiver asking that Commission raise applicants' Category Two budgets by 10% and allow Category Two funding to be used for advanced network security services during the COVID-19 pandemic (i.e., for funding years 2020 and 2021). On February 8, 2021, the FCC received a petition for declaratory ruling and petition for rulemaking from a group of E-Rate program stakeholders (including CoSN, Alliance for Excellence in Education, State Educational Technology Directors Association (SETDA), Council of the Great City Schools, State E-Rate Coordinators' Alliance (SECA), and Schools, Health & Libraries Broadband (SHLB) Coalition) (collectively, Petitioners) requesting that the definition of "firewall" be modified to include all firewall and related features (e.g., next generation firewall protection, endpoint protection, and advanced security)

3

¹⁴ See, e.g., Schools and Libraries Sixth Report and Order, 25 FCC Rcd at 18808-09, para. 105; Modernizing the E-Rate Program for Schools and Libraries, WC Docket 13-184, Report and Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd 8870, 8917-18, para. 120 (2014) (First 2014 E-Rate Order) (removing VPNs and all other services under "Data Protection" other than basic firewalls and uninterruptible power supply/battery backup from the upcoming FY 2015 Eligible Services List to re-focus E-Rate support on internal connections necessary for deploying LANs/WANs).

¹⁵ See, e.g., Schools and Libraries Sixth Report and Order, 25 FCC Rcd at 18808-09, para. 105, n.317 (providing list of the commenters that requested the Commission expand the eligibility of basic firewall services to include other services and devices necessary to protect their broadband networks).

¹⁶ Schools and Libraries Sixth Report and Order, 25 FCC Rcd at 18808-09, para. 105.

¹⁷ First 2014 E-Rate Order, 29 FCC Rcd at 8918, para. 121; see also Modernizing the E-Rate Program for Schools and Libraries, WC Docket No. 13-184, Order, 30 FCC Rcd 9923, 9929, para. 18 (WCB 2015) (Funding Year 2016 ESL Order) (declining to expand eligibility of basic firewall services or to add additional network security services to the Funding Year 2016 E-Rate ESL).

¹⁸ See Modernizing the E-Rate Program for Schools and Libraries, WC Docket No. 13-184, Report and Order, 34 FCC Rcd 11219, 11236-37, para. 46 & n.123 (2019) (2019 Category Two Budget Order) (relying on the First 2014 E-Rate Order and explaining that it was focusing "category two funding on the internal connections that are truly necessary to deliver high-speed broadband to students and library patrons via local area networks and wireless local area network").

¹⁹ Cisco Petition at 1-2, 6.

and to update the definition of broadband to include cybersecurity. ²⁰ CoSN, along with FFL, provided a study and the costs associated with adding advanced firewall and other network security services to the E-Rate program and estimated that it would cost the program about \$2.389 billion annually to fund these advanced network security services for all K-12 schools. ²¹ The Petitioners also asked the Commission to increase the current Category Two budgets to include additional funding for advanced firewall and other network security services. ²²

In October 2021, the President signed the K-12 Cybersecurity Act of 2021,²³ which directed the U.S. Department of Homeland Security to conduct a study of K-12 cybersecurity risks that addresses the specific risks that impact K-12 educations institutions; evaluates cybersecurity challenges K-12 educational institutions face; and identifies cybersecurity challenges related to remote learning.²⁴ The Bureau declined to expand the eligibility of advanced firewalls and services or add additional network security services for funding year 2022, explaining that "this legislation and forthcoming report will provide invaluable insights into what cybersecurity services will be most impactful for K-12 educational institutions."

As part of the funding year 2023 ESL proceeding, a diverse group of E-Rate stakeholders submitted comments, reply comments, and ex parte submissions requesting that the Commission reconsider its earlier eligibility decisions and clarify that advanced or next-generation firewalls and services are eligible for E-Rate support.²⁶ As part of this proceeding, AASA, along with 19 other national educational organizations, requested that the Commission take a measured approach in deciding whether to expand the eligibility of advanced firewalls and services, as well as other cybersecurity services.²⁷ These stakeholders urge the Commission to work collaboratively with other federal agencies to "determine the products and services that are available and effective in responding to and preventing cyberattacks...schools should not be driving the response to cyberattacks, nor should E-Rate, the only federal funding stream supporting connectivity in schools, be repurposed/redirected for this important effort."²⁸

On October 20, 2022, the U.S. Government Accountability Office (GAO) published a report finding that additional federal coordination is needed to enhance K-12 school cybersecurity.²⁹ The GAO recommended that the Secretary of Education: (1) establish a collaborative mechanism, such as a government coordinating council, to coordinate cybersecurity efforts between federal agencies and with the K-12 school community; (2) develop metrics for obtaining feedback to measure the effectiveness of the Department of Education's cybersecurity-related products and services for school districts; and (3) coordinate with the Cybersecurity and Infrastructure Security Agency (CISA) to determine how best to

²⁰ CoSN Petition at 2.

²¹ *Id.* at 14, Attach. at 4.

²² *Id.* at 13.

²³ K-12 Cybersecurity Act, 2021, H.R. 17-122, Pub. L. No. 117-47, 117th Cong., (2021) (enacted), available at https://www.govinfo.gov/content/pkg/BILLS-117s1917enr/pdf/BILLS-117s1917enr.pdf.

 $^{^{24}}$ Id. at § 3(b)(A)-(D).

²⁵ FY 2022 ESL and Order, 2021 WL 6063032, at *3, para. 9.

²⁶ See Appendix A.

²⁷ See AASA Ex Parte Letter at 1 ("E-Rate alone cannot defray the costs of technology and training necessary to secure school and library networks and data.").

²⁸ *Id*.

²⁹ GAO, Critical Infrastructure Protection Additional Federal Coordination is Needed to Enhance K-12 Cybersecurity (2022), https://www.gao.gov/assets/gao-23-105480.pdf (GAO K-12 Cybersecurity Report).

help school districts overcome the identified challenges and consider the identified opportunities for addressing cyber threats as appropriate.³⁰ The GAO further recommended that the Secretary of the Department of Homeland Security should ensure that the Director of CISA develops metrics for measuring the effectiveness of its K-12 cybersecurity-related products and services that are available for school districts and determine the extent that CISA meets the needs of state and local-level school districts to combat cybersecurity threats.³¹

Most recently, on November 15, 2022, the Commission received a proposal for a three-year pilot program to fund advanced firewalls and services as a Category Two service.³² FFL proposes that the Commission establish a three-year pilot program to fund advanced firewalls and services as a Category Two service.³³ FFL also proposes that a funding cap of at least \$60 million to \$120 million be used as the funding cap for each of the three years.³⁴ FFL further proposes that in the event demand exceeds available funds, that the pilot funding be prioritized to the applicants with the highest discount rates, and that the Commission deny funding for the remaining applicants with lower discount rates when the capped pilot funds are exhausted.³⁵

We seek comment on these and other issues raised by the above-referenced petitions and filings. To focus our consideration of these requests, we offer several more specific areas of inquiry below.

Definition of Advanced or Next-Generation Firewalls and Services. In the E-Rate program, firewall is currently defined as "a hardware and software combination that sits at the boundary between an organization's network and the outside world, and protects the network against unauthorized access or intrusions." We seek comment on this definition and, as discussed below, whether any modifications may be appropriate.

Eligible Equipment and Services and their Costs. We further seek comment on the specific equipment and services that E-Rate should support to fund as advanced or next-generation firewalls and services, as well as the costs associated with funding these services. For example, Fortinet requests E-Rate support for advanced or next-generation firewalls and services that include the following capabilities: intrusion prevention/intrusion detection (IPS/IDS); VPN; distributed denial-of-service (DDoS) protection; and network access control (NAC).³⁷ FFL suggests advanced firewall features should include "intrusion detection/prevention, malware detection/filtering, application control/visibility, antispam services, URL/DNS filtering, and endpoint-related protections."³⁸ What are the advanced or next-generation firewalls and services needed to protect schools' and libraries' broadband networks from cyberattacks? What advanced firewall services should be considered to be eligible "advanced or next-generation services" for E-Rate support? How should funding for these advanced services be prioritized, given that there is not sufficient E-Rate support to fund every advanced or next-generation firewall service? For example, should end-point related protections be excluded from E-Rate eligible "advanced or next-generation firewalls and services? Why or why not? We also seek comment on whether firewall

³⁰ *Id.* at 32.

³¹ *Id.* GAO did not direct any recommendations to the FCC.

³² See, e.g., FFL Ex Parte Letters.

³³ See FFL Ex Parte Letters.

³⁴ FFL Nov. 23 Ex Parte Letter at 1.

³⁵ *Id.* at 2-3.

³⁶ USAC, Schools and Libraries (E-Rate) Program Eligible Services List (ESL) Glossary, at https://www.usac.org/wp-content/uploads/e-rate/documents/ESL-Glossary.pdf (last visited Dec. 14, 2022).

³⁷ Fortinet Comments at 15-16.

³⁸ FFL Nov. 23 Ex Parte Letter at 3.

as a service (FWaaS) should be eligible for E-Rate support.³⁹ We encourage schools, libraries, and other stakeholders that have recent experience with advanced firewall services and the related-costs to provide specific information about the services they are purchasing, the costs they are paying, and what they have done to ensure these services and equipment are sufficient to protect their broadband networks and that the costs are reasonable.

Considering the E-Rate program's limited funds and the evolving connectivity needs of schools and libraries, should the Commission expand E-Rate support to fund advanced or next-generation firewalls and services, or continue to fund only basic firewalls and services as is currently allowed in the E-Rate program? Why or why not? Do commenters believe that expanding support to include advanced or next-generation firewalls and services is a prudent use of limited E-Rate funds? Would doing so affect the E-Rate program's longstanding goal of basic connectivity? Instead of expanding the eligibility of firewalls and services at this time, should the Commission continue working with its federal partners, including CISA and the Department of Education to develop a holistic approach to address and prevent cyberattacks against the K-12 schools and libraries? For example, are any non-E-Rate funded services and equipment needed to fully address and prevent these cyberattacks, such as training and implementing a cybersecurity framework and program at each school and library? Will providing funding only for advanced or next-generation firewalls and services be sufficient to protect K-12 schools' and libraries networks from cyberattacks? Is the amount of E-Rate funding allowed under its funding cap sufficient to cover all of the eligible schools' and libraries' connectivity needs, as well as their advanced firewall and other network security services? We seek comment on these questions.

Categorization of Firewall Services and Components. Currently, pursuant to the Commission's rules, basic firewall service provided as part of the vendor's Internet access service is eligible as a Category One service. Separately priced basic firewall services and components are eligible as a Category Two service. We seek comment on whether advanced or next-generation firewall services and components should be eligible as a Category One and/or Category Two service. For example, if FWaaS is determined eligible for E-Rate support, should FWaaS be eligible for Category One and/or Category Two support? Should advanced or next-generation firewalls and services only be eligible for Category Two support and subject to the applicant's five-year Category Two budget? Why or why not? If advanced firewall or next generation services should be eligible as both a Category One and Category Two service, how should the Commission delineate these services as a Category One and as a Category Two service? We seek comment on these questions.

Cost-Effective Purchases. If the Commission makes advanced or next-generation firewall services eligible as only Category Two service, would this be an effective way to ensure applicants are making cost-effective choices when requesting these services and equipment? Are there other measures the Commission could adopt to ensure cost-effective purchases of advanced or next-generation firewalls and services are being made? Should funding be limited to only cloud-based advanced or next-generation firewalls and services to ensure funding is not spent on firewall equipment that will need to be replaced every three to five years? What are other steps the Commission could take to ensure that limited E-Rate funds are cost-effectively used for advanced or next-generation firewalls and services? How can these limited funds be allocated to ensure applicants are making cost-effective purchases? What steps should the Commission take to ensure the constrained E-Rate funds are available for its primary purposes of bringing connectivity to and within the schools and libraries in light of the significant annual costs associated with advanced or next-generation firewalls and services?

Legal Issues. Sections 254(c)(1), (c)(3), (h)(1)(B), and (h)(2) of the Communications Act

6

³⁹ Firewall as a Service (FWaaS) is cloud-based security solution that provides advanced firewall services without the need for traditional on-premise firewall equipment and firewall services. FWaaS functions in the same manner as traditional on-premise firewalls, but offers increased scalability and customization to address the individual security needs of the organization because it is a cloud-based solution. See, e.g., Jon Gold, What is firewall as a service? (Aug. 30, 2021), https://www.networkworld.com/article/3631055/what-is-firewall-as-a-service.html.

collectively grant the Commission broad and flexible authority to set the list of services that will be supported for eligible schools and libraries, as well as to design the specific mechanisms of support. Ocean advanced or next-generation firewalls and services. We invite other stakeholders to comment on the Commission's legal authority to add advanced or next-generation firewalls and services as an eligible service for the E-Rate program. Do other stakeholders agree that the addition of these services is within the scope of the Commission's legal authority? Are there other legal issues or concerns the Commission should consider before extending E-Rate support to advanced or next-generation firewalls and services? Are there statutory limitations that the Commission should consider? What are these limitations? We seek comment on these questions.

Filing Requirements. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments on or before **February 13, 2023**, and reply comments on or before **March 30, 2023**.⁴² All filings should refer to WC Docket No. 13-184. Comments may be filed by a paper or by using the Commission's Electronic Comment Filing System (ECFS). See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).

- Electronic Filers: Comments and replies may be filed electronically using the Internet by accessing ECFS: http://www.fcc.gov/ecfs.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each
 filing. If more than one docket or rulemaking number appears in the caption of this
 proceeding, filers must submit two additional copies for each additional docket or rulemaking
 number.
- Filings can be sent by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 45 L Street, NE, Washington DC 20554.
- Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID-19.⁴³

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Government Affairs Bureau at 202-418-0530.

Ex Parte Rules. This proceeding shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's ex parte rules.⁴⁴ Persons making ex parte presentations must file a

⁴⁰ 47 U.S.C. §§ 254(c)(1), (c)(3), (h)(1)(B), and (h)(2)(A).

⁴¹ See, e.g., CoSN Petition at 12; Fortinet Comments at 16-17.

⁴² See 47 CFR § 1.4(j) (filing dates that would otherwise fall on a holiday shall be filed on the next business day).

⁴³ See FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Filing, Public Notice, 35 FCC Rcd 2788 (2020). In response to the COVID-19 pandemic, the FCC has closed its current hand-delivery filing location at FCC Headquarters. We encourage outside parties to take full advantage of the Commission's electronic filing system. Any party that is unable to meet the filing deadline due to the building closure may request a waiver of the comment or reply comment deadline, to the extent permitted by law.

⁴⁴ See 47 CFR § 1.1200 et seg.

copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentation must: (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made; and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part the presentation of data or arguments already reflected in the presenters written comments, memoranda, or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to be written ex parte presentations and must be filed consistent with section 1.1206(b) of the Commission's rules. In proceedings governed by section 1.49(f) of the rules or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml., .ppt, searchable .pdf). 45 Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

Additional Information. For further information regarding this Notice, please contact Joseph Schlingbaum, Attorney Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau (202) 418-0829 or Joseph.Schlingbaum@fcc.gov.

- FCC -

8

⁴⁵ *Id.* § 1.1206(b).

APPENDIX A

List of Filers

Filer	Date Filed	Docket(s)	Link
Cisco Systems, Inc.	August 20, 2020	WC 13-184	https://www.fcc.gov/ecfs/documen t/10820400607480/1
Consortium of School Networking; the Alliance for Excellence in Education, the Council of the Great City Schools, the Schools, Health, & Libraries Broadband Coalition, the State Educational Technology Directors Association, and the State E-rate Coordinators' Alliance	February 8, 2021	WC 13-184	https://www.fcc.gov/ecfs/filing/10 2081871205710
Los Angeles Unified School District, <i>et al</i> .	September 21, 2022	WC 13-184	https://www.fcc.gov/ecfs/documen t/10922246829893/1
Val Verde Unified School District	September 21, 2022	WC 13-184	https://www.fcc.gov/ecfs/documen t/1092155232964/1
Fortinet, Inc.	September 21, 2022	WC 13-184	https://www.fcc.gov/ecfs/documen t/1092169464539/1
American Library Association	September 21, 2022	WC 13-184	https://www.fcc.gov/ecfs/documen t/109210837301355/1
Council of the Great City Schools	September 21, 2022	WC 13-184	https://www.fcc.gov/ecfs/documen t/10921897317578/1
AASA, The School Superintendents Association, <i>et al</i> .	September 23, 2022	CC 02-6	https://www.fcc.gov/ecfs/documen t/10923187101919/1
State Educational Technology Directors Association	October 4, 2022	WC 13-184	https://www.fcc.gov/ecfs/documen t/1004911103462/1
Consortium of School Networking	October 4, 2022	WC 13-184	https://www.fcc.gov/ecfs/documen t/1004559017562/1
Crown Castle Fiber LLC	October 4, 2022	WC 13-184	https://www.fcc.gov/ecfs/documen t/100653333586/1
Sacramento County Office of Education	November 14, 2022	WC 13-184	https://www.fcc.gov/ecfs/documen t/1114747822386/1
Funds for Learning	November 15, 2022	CC 02-6; WC 13- 184	https://www.fcc.gov/ecfs/documen t/111630719929/1
Funds for Learning	November 21, 2022	CC 02-6; WC 13- 184	https://www.fcc.gov/ecfs/documen t/1122304899639/1
Fortinet, Cisco, Hewlett Packard, ENA, Microsoft Joint Ex Parte	November 22, 2022	WC 13-184	https://www.fcc.gov/ecfs/documen t/1122275903360/1
Funds for Learning	November 23, 2022	CC 02-6; WC 13- 184	https://www.fcc.gov/ecfs/documen t/112325067454/1
Schools, Health, Libraries Broadband (SHLB) Coalition	November 23, 2022	WC 13-184	https://www.fcc.gov/ecfs/documen t/1123988929244/1
Cisco Systems, Inc.	November 25, 2022	WC 13-184	https://www.fcc.gov/ecfs/documen t/112507410880/1
State E-Rate Coordinators' Alliance	December 8, 2022	WC 13-184	https://www.fcc.gov/ecfs/docu ment/120765518826/1